



How to market chemical products more efficiently

It is becoming increasingly important (and at the same time more difficult) for chemical companies to market their products online. Existing offers often mean high running costs and possible lock-in effects for manufacturers - and buyers often fall back on outdated information from an incomplete supplier base. While there is a growing number of new platforms, meanwhile, the market is becoming more convoluted as a result. This is one reason why around 80% of B2B chemicals buyers start their online search on Google & Co. And before they even contact a manufacturer, the purchasing process is already well underway, a result that is not always satisfactory for either side...

case STUDY

Against this background, the Swiss chemicals group Clariant AG launched a project within its digital innovation team in 2017 to design, create and operate an innovative marketing platform. The aim of this online offer, known as “Chemberry”, is to make it easy to find the chemical ingredients required for the production of consumer goods and to put manufacturers of consumer goods in touch with suitable ingredient suppliers. This benefits both groups - on the one hand by reducing the cost of searching and comparing required ingredients globally, and on the other by providing an additional distribution channel and increased visibility. To achieve this, Chemberry starts with the early stages of a “customer journey” and accompanies both groups until the start of a potential business relationship.

The foundation - high quality, comparable data

Chemberry collects a large proportion of the required data (offered ingredients and their properties) via crawling and automatic information extraction directly from suppliers’ websites, which typically have all the essential information. The Clariant team selects the relevant websites, and in a second step, the data are verified and extended by the providers. Also, information from third-party providers, such as certifiers, is added.

To obtain a basis for the conception of the crawling strategy, individual websites were analyzed by Karakun experts in terms of both content and technology. The content analysis provided insights into the relevant ingredient properties and the technical terminology used. On this basis, suitable dictionaries, thesauruses and ontologies were developed in cooperation with the client, which together can be used to classify, structure and standardize the information obtained. The technical analysis of the websites, on the other hand, served as the basis for the requirements for the crawlers and tools for information extraction to be developed.

By combining the collected information, the team was able to design and implement an analysis pipeline that regularly visits the provider websites, extracts relevant information, stores it in a uniform data structure and assigns it to specific products (“ingredients”). It was only this step that ultimately enabled automated processing and easy comparability.

Simple, intuitive and intelligent search

In the next step, the requirements for the central search function were analyzed and corresponding suggestions were developed, such as auto-complete, intelligent correction suggestions, synonym search and semantic search filters. Subsequently, the formal data model for the search index as well as the information flow for the users was defined. The search function was implemented using Karakun’s own HIBU platform. The MVP (“Minimum Viable Product”) already impressed users with a synonym search and a wide range of search filters for efficiently limiting the number of hits to the desired search results. Both functionalities are based on the dictionaries and thesauruses generated, and a terminology thus standardized for all providers.

Agile implementation of market requirements

From the very beginning, the Chemberry platform was developed with a “Lean Startup” approach. It was brought to market at an early stage, development cycles were kept short, and each development step (as well as the viability of the business model) was tested on the market, findings being incorporated into the design of the next iteration.

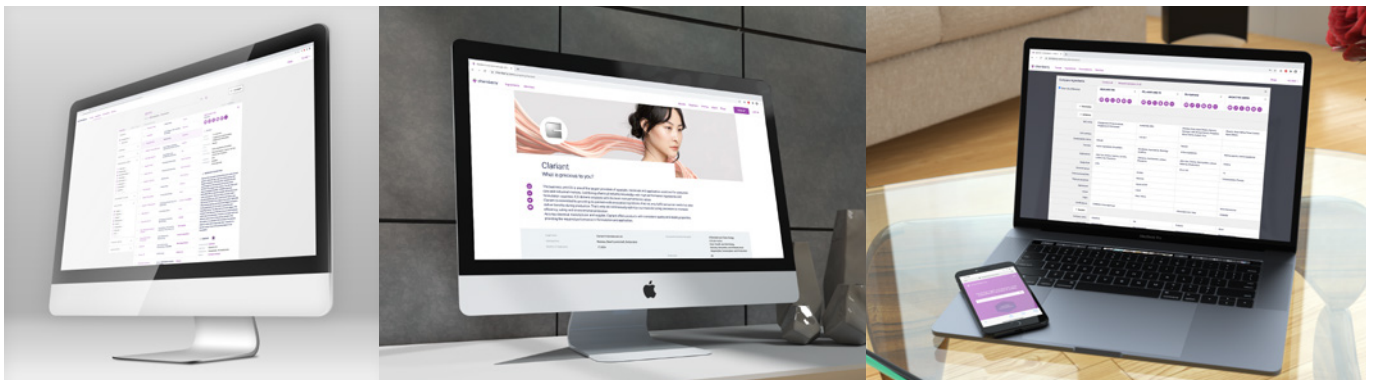
At the beginning of the project, a Proof of Concept (PoC) was thus created with few data and a simple user interface to check the basic feasibility of automated data collection. At the same time, the project team received vital feedback on usage and user interaction with this PoC. This resulted, in just a few further iterations, in a Minimal Viable Product (MVP), with a far larger volume of data from many available supplier websites, basic functions such as user administration with user roles, extended search functions, first market trend widgets and improved, more comprehensive overall presentation of information.

Meanwhile, new features and entire thematic function blocks have been regularly developed and rolled out in an agile approach. Thus, in addition to the market segment “Personal Care” (body care), the segment “Home Care” (detergents and cleaning agents) was developed. For this purpose, the appropriate technical terminology had to be created for new data fields. When searching for products, users now additionally have access to

dynamic, intelligent correction functions (“Did you mean...” vs. “Showing results for...”). Personalized functions such as search history and bookmarks/favorites as well as a search within the bookmarks are also available to users.

New features include flexible graphical data mining tools that can be used to detect new trends in product data and (anonymized) user data. Besides, various subscription models have been integrated as well as convenient contact features for buyers and suppliers. Most recently, new features were added - an editor for the processing of automated product data by suppliers, upload and download of product-specific documents, and for each manufacturer a separate Chemberry page as an additional entry point (so-called “Company Storefronts”).

The vertical range of products has also been expanded. In addition to products, Chemberry now likewise lists services related to the production and marketing of consumer goods, such as consulting, contract manufacturing, formulation, regulation & compliance, R&D, software and testing.



Milestone attained

In the meantime, the Chemberry platform (www.chemberry.com), operated on the Amazon cloud AWS, has a rapidly growing user base and over 40,000 registered products (“ingredients”) from the “personal care” and “home care” ranges. Regular web crawling ensures that data are continuously updated, reducing manual effort and costs for manufacturers, and giving buyers access to up-to-date information. Karakun provides further development and maintenance of the application as well as support regarding the technical operation, customer onboarding and users. Software-related measures for search engine optimization (SEO) are also an ongoing task.

Into the future together

Together with our customer Clariant AG, we have created and introduced a radically new global industry platform. The USP of Karakun in this project was a mix of comprehensive expertise from different areas. While the UX team from the very start focused the project on the user, our specialists in the areas of language technology, search and software engineering ensured that customer requirements were implemented on time and within budget, using an agile approach.

A long-term vision exists too for the future. With the requisite input from Clariant AG, Karakun will continue to develop the platform to improve usability and collaboration between all parties involved. Amongst others, horizontal (e.g. additional market segments and additional analytics tools) and vertical extensions (e.g. regionalized search, product API, AI-based recommendations), as well as user-involvement measures, are in the pipeline.

About Clariant AG / Chemberry

As one of the world's leading specialty chemical companies, Clariant contributes to value creation with innovative and sustainable solutions for customers from many industries. Our portfolio is designed to meet very specific needs with as much precision as possible. At the same time, our research and development is focused on addressing the key trends of our time. These include energy efficiency, renewable raw materials, emission-free mobility, and conserving finite resources.

Chemberry™ is a B2B platform that enables marketers and formulators of consumer care brands to find the right Personal Care, Household and Industry & Institutional ingredients and services quickly and easily. Chemical suppliers and service providers are enabled to highlight differentiating features and efficiently close leads. With our vertical approach, we managed to become the most comprehensive platform in these segments covering more than 40.000 ingredients and services around them.

About Karakun AG

Karakun AG was founded in 2018 and has a total of 50 employees in Switzerland, Germany and India. Our core competency is the agile development of individual software for companies and organizations with Java platforms and web technologies. Our main focus is to provide users with applications which support their daily work and are fun to use.

Our passion extends to consulting and educating our customers in which technology to select and how to improve their software development. Among our consultants and trainers are Java Champions, JavaOne Rockstars as well as book authors.

